

Pending Claims

The following Listing of Claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (previously presented): A system for providing remote electronic services to a voice device, comprising:

an access module configured to expose messaging/collaboration data, including at least one of electronic mail data, calendar data, contacts data, and tasks data, that are stored on a messaging/collaboration server, wherein the access module is configured to manage amount of data transmitted to the voice device to accommodate capacity constraints of the voice device, wherein the access module additionally is configured to create a replacement reference identifying a data item identified by a messaging/collaboration server reference into the messaging/collaboration data, pass the replacement reference to the voice device without passing the data item, and store an association between the replacement reference and the messaging/collaboration server reference; and

a voice interface module configured to translate messaging/collaboration service requests from the voice device for presentation to the access module and to translate a requested messaging/collaboration service deliverable from the access module for presentation to the voice device.

Claim 2 (original): The system of claim 1, wherein the voice interface module generates for presentation to the voice device a request form containing a list of one or more messaging/collaboration service options.

Claim 3 (original): The system of claim 2, further comprising a voice interface access page configured to invoke a COM (Component Object Model) object in response to a request form completed by the voice device.

Claim 4 (original): The system of claim 3, wherein the COM object is configured to instantiate a server object for transmitting a request-for-service call to the access module.

Claim 5 (original): The system of claim 1, further comprising a voice gateway for translating communications from the voice device from a first message format into a second message format.

Claim 6 (original): The system of claim 5, wherein the voice gateway is configured to translate between electronic voice signals and a voice-based markup language.

Claim 7 (original): The system of claim 1, wherein the voice interface module is configured to communicate with the access module in accordance with the hypertext transfer protocol (HTTP).

Claim 8 (original): The system of claim 1, wherein the voice interface module is configured to filter a requested messaging/collaboration service deliverable for presentation to the voice device.

Claim 9 (original): The system of claim 1, wherein the access module and the voice interface module reside on different server computers.

Claim 10 (original): The system of claim 1, wherein the access module is configured to expose messaging/collaboration data stored on a Microsoft® Exchange® server computer.

Claim 11 (previously presented): A system for providing remote electronic services to a wireless device, comprising:

an access module configured to expose messaging/collaboration data, including at least one of electronic mail data, calendar data, contacts data, and tasks data, that are stored on a messaging/collaboration server, wherein the access module is configured to manage amount of data transmitted to the wireless device to accommodate capacity constraints of the wireless device, wherein the access module additionally is configured to create a replacement reference identifying a data item identified by a messaging/collaboration server reference into the messaging/collaboration data, pass the replacement reference to the wireless device

without passing the data item, and store an association between the replacement reference and the messaging/collaboration server reference; and

a wireless interface module configured to translate messaging/collaboration service requests from the wireless device for presentation to the access module and to translate a requested messaging/collaboration service deliverable from the access module for presentation to the wireless device.

Claim 12 (original): The system of claim 11, wherein the wireless interface module generates for presentation to the wireless device a request form containing a list of one or more messaging/collaboration service options.

Claim 13 (previously presented): The system of claim 12, further comprising a wireless interface access page configured to invoke a COM (Component Object Model) object in response to a request form completed by the wireless device.

Claim 14 (original): The system of claim 13, wherein the COM object is configured to instantiate a server object for transmitting a request-for-service call to the access module.

Claim 15 (original): The system of claim 11, further comprising a wireless gateway for translating communications from the wireless device from a first message transfer protocol into a second message transfer protocol.

Claim 16 (original): The system of claim 15, wherein the wireless gateway is configured to translate between a wireless application protocol (WAP) and a hypertext transfer protocol (HTTP).

Claim 17 (original): The system of claim 11, wherein the wireless interface module is configured to communicate with the access module in accordance with the hypertext transfer protocol (HTTP).

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Claim 18 (original): The system of claim 11, wherein the wireless interface module is configured to filter a requested messaging/collaboration service deliverable for presentation to the wireless device.

Claim 19 (original): The system of claim 11, wherein the access module and the wireless interface module reside on different server computers.

Claim 20 (original): The system of claim 11, wherein the access module is configured to expose messaging/collaboration data stored on a Microsoft® Exchange® server computer.

Claim 21 (previously presented): The system of claim 1, wherein, in response to a request-for-service call from the voice device, the access module is configured to pass to the voice device less than all of the messaging/collaboration data exposed in response to the request-for-service call.

Claim 22 (canceled)

Claim 23 (previously presented): The system of claim 21, wherein the access module is configured to transmit the referenced data item to the voice device in response to receipt of the replacement reference from the voice device.

Claim 24 (previously presented): The system of claim 21, wherein the access module is configured to divide a message exposed in response to a request-for-service call from the voice device into sub-messages and transmit to the voice device a list of references to the sub-messages.

Claim 25 (previously presented): The system of claim 24, wherein the access module is configured to transmit ones of the sub-messages to the voice device in response to receipt of the corresponding references to the sub-messages from the voice device.

Claim 26 (previously presented): The system of claim 21, wherein the access module is configured to filter characters that are incompatible with the voice device from data items before passing the data items to the voice device.

Claim 27 (previously presented): The system of claim 1, wherein the access module is configured to reduce header and gateway data from data items before passing the data items to the voice device.

Claim 28 (previously presented): The system of claim 1, wherein the access module is configured to send a data item designated by the voice device to a fax server.

Claim 29 (previously presented): The system of claim 28, wherein the access module is configured to expand an attachment to the designated data item for fax transmission.

Claim 30 (previously presented): The system of claim 11, wherein, in response to a request-for-service call from the wireless device, the access module is configured to pass to the wireless device less than all of the messaging/collaboration data exposed in response to the request-for-service call.

Claim 31 (canceled)

Claim 32 (previously presented): The system of claim 30, wherein the access module is configured to transmit the referenced data item to the wireless device in response to receipt of the replacement reference from the wireless device.

Claim 33 (previously presented): The system of claim 30, wherein the access module is configured to divide a message exposed in response to a request-for-service call from the wireless device into sub-messages and transmit to the wireless device a list of references to the sub-messages.

Claim 34 (previously presented): The system of claim 33, wherein the access module is configured to transmit ones of the sub-messages to the wireless device in response to receipt of the corresponding references to the sub-messages from the wireless device.

Claim 35 (previously presented): The system of claim 30, wherein the access module is configured to filter characters that are incompatible with the wireless device from data items before passing the data items to the wireless device.

Claim 36 (previously presented): The system of claim 11, wherein the access module is configured to reduce header and gateway data from data items before passing the data items to the wireless device.

Claim 37 (previously presented): The system of claim 11, wherein the access module is configured to send a data item designated by the wireless device to a fax server.

Claim 38 (previously presented): The system of claim 37, wherein the access module is configured to expand an attachment to the designated data item for fax transmission.

Claim 39 (previously presented): The system of claim 1, wherein the replacement reference is smaller in size than the messaging/collaboration server reference.

Claim 40 (previously presented): The system of claim 11, wherein the replacement reference is smaller in size than the messaging/collaboration server reference.